



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

Northeast Regional Office • 205B Lowell Street, Wilmington MA 01887 • 978-694-3200

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November 16, 2016

Paul Mitchell
ARLIN Mfg. Co., Inc.
239 Industrial Avenue East
Lowell, MA 01852

RE: LOWELL
Transmittal No.: X255387
Application No.: NE-13-009
Class: *SM-50*
FMF No.: 181896
AIR QUALITY PLAN APPROVAL

Dear Mr. Mitchell:

The Massachusetts Department of Environmental Protection (“MassDEP”), Bureau of Air and Waste, has reviewed your Non-major Comprehensive Plan Application (“Application”) listed above. This Application concerns the proposed operation of an Environmental Results Program coating machine at your printing facility located at 239 Industrial Avenue East in Lowell, Massachusetts (“Facility”). The Application bears the seal and signature of Mr. Paul Murphy, Massachusetts Registered Professional Engineer Number 41840.

This Application was submitted in accordance with 310 CMR 7.02 Plan Approval and Emission Limitations as contained in 310 CMR 7.00 “Air Pollution Control” regulations adopted by MassDEP pursuant to the authority granted by Massachusetts General Laws, Chapter 111, Section 142 A-O, Chapter 21C, Section 4 and 6, and Chapter 21E, Section 6. MassDEP’s review of your Application has been limited to air pollution control regulation compliance and does not relieve you of the obligation to comply with any other regulatory requirements.

MassDEP has determined that the Application is administratively and technically complete and that the Application is in conformance with the Air Pollution Control regulations and current air pollution control engineering practice, and hereby grants this **Plan Approval** for said Application, as submitted, subject to the conditions listed below.

Please review the entire Plan Approval, as it stipulates the conditions with which the Facility owner/operator (“Permittee”) must comply in order for the Facility to be operated in compliance with this Plan Approval.

1. DESCRIPTION OF FACILITY AND APPLICATION

ARLIN Mfg. Co., Inc. (ARLIN) is a manufacturing facility specializing in custom extrusion and converting of plastic film. ARLIN serves a variety of industrial clients, including film and pharmaceutical manufacturing, packaging facilities, and others. A water-based print line (the “Old Press”) was installed in 2000 under the de minimis emission exemption of 310 CMR 7.02(2)(b)7. ARLIN installed a new coat-print-coat coating line (the “CPC Line”) that applies inks to plastic films. On July 23, 2012, ARLIN installed the CPC Line under the Environmental Results Program (ERP) certification for commercial printing facilities. Based on projected growth, ARLIN requested to gain approval under 310 CMR 7.02 for potential emission greater than the 10 tons per year (tpy) limit pursuant to the ERP regulations. ARLIN is seeking to establish a facility-wide limit on emissions of volatile organic compounds (VOC) and hazardous air pollutants (HAP). ARLIN is, and will continue to be, a minor source of VOC and HAP and is not a significant source of emission of other types of pollutants. As ARLIN is not a major source of HAP, major source Maximum Achievable Control Technology (MACT) standards do not apply. ARLIN provided a review of other federal and state programs and found that no area source MACT rules apply. The applicability of New Source Performance Standards (NSPS) is discussed below. ARLIN also reviewed Best Available Control Technology (BACT), which is defined in Table 2 below.

The CPC Line consists of a combination coater and print machine with two two-zone drying ovens and one single zone drying oven. The coating and print stations were manufactured by Chestnut Corp. Heat to the ovens is provided by five separate natural gas-fired burners with a total maximum heat input rating of 2.5 million British thermal units per hour (MMBtu/hr). ARLIN is using the first gravure print station for the application of a silicone layer on the back side of the film. After the silicone is applied, it passes into the ovens for drying/curing. The silicone-coated film then enters the remaining series of gravure print stations, where the inks are applied. After passing through the dedicated drying ovens for the print stations, the film passes through a slot die coating station where the adhesive is applied. ARLIN may choose to operate the unit in a variety of production modes, using one, or all of the print stations. The line supports a maximum web width of 15 inches and has the capacity to run at 300 feet per minute (fpm).

The existing line, (the “Old Press” also known as “Press 1”), also manufactured by Chestnut, is a 4 station print line capable of applying up to four colors. This line affords the flexibility of using one station for the application of silicone or adhesive. This line also is designed for a 15-inch web width and 300 fpm. This line may be used as a back-up to the CPC line when demand is high for CPC products, or when the CPC line is down.

Applicable Regulatory Requirements

40 CFR 60, Subpart RR

This subpart applies to each coating line used in the manufacture of pressure sensitive tape and label materials. Any coating line which inputs to the coating process 45 Mg (50 tons) of VOC or less per 12 month period is not subject to the emission limits of §60.442(a), but is subject to the requirements of all other applicable sections of the subpart. This subpart only applies to the CPC Line.

ARLIN manufactures pressure sensitive tapes, but not labels. ARLIN's VOC usage will be capped well below 50 tons of VOC. Although the emission limits do not apply, ARLIN must meet the monitoring and recordkeeping requirements of 40 CFR 60.445. As per that rule, ARLIN must maintain a calendar month record of all coatings used and the manufacturer's formulation data used for determining the VOC content of those coatings. ARLIN represents that it has complied with its notification requirements for Subpart RR.

ARLIN's review of the NSPS regulations found no other applicable subparts.

2. **EMISSION UNIT IDENTIFICATION**

Each Emission Unit ("EU") identified in Table 1 is subject to and regulated by this Plan Approval:

Table 1			
EU#	Description	Design Capacity	Pollution Control Device (PCD)
EU1	Old Press (also known as Press 1)	725 Square Feet of coated product per minute (total)	None
EU2	Coat-Print-Coat Line or CPC Line	725 Square Feet of coated product per minute (total)	None

Table 1 Key:

EU# = Emission Unit Number

PCD = Pollution Control Device

3. APPLICABLE REQUIREMENTS

A. OPERATIONAL, PRODUCTION and EMISSION LIMITS

The Permittee is subject to, and shall not exceed the Operational, Production, and Emission Limits as contained in Table 2:

Table 2			
EU#	Operational / Production Limit	Air Contaminant	Emission Limit
EU1 EU2	N/A	VOC	5.0 TPM 16.0 TPY
		Individual HAP	2.0 TPM 4.0 TPY
		Total HAP	4.0 TPM 12.0 TPY
Facility- wide	N/A	VOC	5.2 TPM 16.2 TPY
		Individual HAP	2.2 TPM 4.2 TPY
		Total HAP	4.2 TPM 12.2 TPY

Table 2 Key:

EU# = Emission Unit Number

VOC = Volatile Organic Compounds

Individual HAP = maximum single Hazardous Air Pollutant

Total HAP = total Hazardous Air Pollutants

TPM = tons per month

TPY = tons per consecutive 12-month period

B. COMPLIANCE DEMONSTRATION

The Permittee is subject to, and shall comply with, the monitoring, testing, record keeping, and reporting requirements as contained in Tables 3, 4, and 5:

Table 3	
EU#	Monitoring and Testing Requirements
EU1 EU2	1. The Permittee shall monitor the amount of inks, coatings, adhesives, solvents and clean-up solutions used by each EU on a monthly basis.
	2. The Permittee shall monitor the VOC and HAP content of all inks, coating, adhesives, solvents and clean-up solutions.
	3. The Permittee currently ships hazardous waste off site. The amount of waste shipped out may be tracked and the VOC content may be subtracted from the facility's overall purchases to determine air emissions. The amount of credit taken for hazardous waste shipments must be based on sample analysis, or by worst-case (i.e., lowest VOC content) assumption.
EU2	4. The Permittee shall comply with all applicable monitoring requirements associated with 40 CFR 60.445.
Facility-wide	5. The Permittee shall monitor all operations to ensure sufficient information is available to comply with 310 CMR 7.12 Source Registration.
	6. If and when MassDEP requires it, the Permittee shall conduct emission testing in accordance with USEPA Reference Test Methods and Regulation 310 CMR 7.13.
	7. At least 30 days prior to emission testing, the Permittee shall submit to MassDEP for approval a stack emission pretest protocol.
	8. Within 45 days after emission testing, the Permittee shall submit to MassDEP a final stack emission test results report.

Table 3 Key:

EU# = Emission Unit Number
VOC = Volatile Organic Compounds
HAP = Hazardous Air Pollutants
CMR = Code of Massachusetts Regulations
CFR = Code of Federal Regulations
MassDEP = Massachusetts Department of
Environmental Protection
USEPA = United States Environmental Protection
Agency

Table 4	
EU#	Record Keeping Requirements
EU1 EU2	1. The Permittee shall maintain records of the consumption of VOC containing and HAP containing materials on a monthly basis.
	2. The Permittee shall maintain records of the VOC and HAP content of VOC containing and HAP containing materials on a monthly basis.
EU2	3. The Permittee shall comply with all applicable record keeping requirements associated with 40 CFR 60.445.
Facility-wide	4. The Permittee shall maintain adequate records on-site to demonstrate compliance status with all operational, production, and emission limits contained in Table 2 above. Records shall also include the actual emissions of air contaminant(s) emitted for each calendar month and for each consecutive twelve-month period (current month plus prior eleven months). These records shall be compiled no later than the 15 th day following each month. An electronic version of the MassDEP approved record keeping form, in Microsoft Excel format, can be downloaded at http://www.mass.gov/eea/agencies/massdep/air/approvals/limited-emissions-record-keeping-and-reporting.html#WorkbookforReportingOn-SiteRecordKeeping .
	5. The Permittee shall maintain records of monitoring and testing as required by Table 3.
	6. The Permittee shall maintain a copy of this Plan Approval, underlying Application and the most up-to-date SOMP for the EU(s) approved herein on-site.
	7. The Permittee shall maintain a record of routine maintenance activities performed on the approved EU(s), and monitoring equipment. The records shall include, at a minimum, the type or a description of the maintenance performed and the date and time the work was completed.
	8. The Permittee shall maintain a record of all malfunctions affecting air contaminant emission rates on the approved EU(s) and monitoring equipment. At a minimum, the records shall include: date and time the malfunction occurred; description of the malfunction; corrective actions taken; the date and time corrective actions were initiated and completed; and the date and time emission rates and monitoring equipment returned to compliant operation.
	9. The Permittee shall maintain records to ensure sufficient information is available to comply with 310 CMR 7.12 Source Registration.
	10. The Permittee shall maintain records required by this Plan Approval on-site for a minimum of five (5) years.
	11. The Permittee shall make records required by this Plan Approval available to MassDEP and USEPA personnel upon request.

Table 4 Key:

EU# = Emission Unit Number

SOMP = Standard Operating and Maintenance
Procedure
CMR = Code of Massachusetts Regulations
CFR = Code of Federal Regulations
MassDEP = Massachusetts Department of
Environmental Protection
USEPA = United States Environmental Protection
Agency

Table 5	
EU#	Reporting Requirements
EU2	1. The Permittee shall comply with all applicable reporting requirements associated with 40 CFR 60.445.
Facility-wide	2. The Permittee shall submit to MassDEP all information required by this Plan Approval over the signature of a "Responsible Official" as defined in 310 CMR 7.00 and shall include the Certification statement as provided in 310 CMR 7.01(2)(c).
	3. The Permittee shall notify the Northeast Regional Office of MassDEP, BAW Permit Chief by telephone: 978-694-3200, email: NERO.Air@massmail.state.ma.us, or fax: 978-694-3499, as soon as possible, but no later than three (3) business day after discovery of an exceedance(s) of Table 2 requirements. A written report shall be submitted to Permit Chief at MassDEP within ten (10) business days thereafter and shall include: identification of exceedance(s), duration of exceedance(s), reason for the exceedance(s), corrective actions taken, and action plan to prevent future exceedance(s).
	4. The Permittee shall report every three years to MassDEP, in accordance with 310 CMR 7.12, all information as required by the Source Registration/Emission Statement Form. The Permittee shall note therein any minor changes (under 310 CMR 7.02(2)(e), 7.03, 7.26, etc.), which did not require Plan Approval.

Table 5 Key:

EU# = Emission Unit Number
CMR = Code of Massachusetts Regulations
MassDEP = Massachusetts Department of
Environmental Protection

4. SPECIAL TERMS AND CONDITIONS

- A. The Permittee is subject to, and shall comply with, the Special Terms and Conditions as contained in Table 6 below:

Table 6	
EU#	Special Terms and Conditions
Facility-wide	1. All VOC containing and HAP containing materials, such as solvents and cleanup solutions, shall be transported and stored in tightly covered containers.
	2. All cleaning rags used in conjunction with the cleaning solutions shall be placed in tightly covered containers when not in use, and shall be collected for proper recycling or disposal.

Table 6 Key:

EU# = Emission Unit Number
VOC = Volatile Organic Compounds
HAP = Hazardous Air Pollutants

- B. The Permittee shall install and use an exhaust stack, as required in Table 7, on each of the Emission Units that is consistent with good air pollution control engineering practice and that discharges so as to not cause or contribute to a condition of air pollution. Each exhaust stack shall be configured to discharge the gases vertically and shall not be equipped with any part or device that restricts the vertical exhaust flow of the emitted gases, including, but not limited to, rain protection devices known as “shanty caps” and “egg beaters.”
- C. The Permittee shall install and utilize exhaust stacks with the following parameters, as contained in Table 7, for the Emission Units that are regulated by this Plan Approval:

Table 7				
EU#	Stack Height Above Ground (feet)	Stack Inside Exit Dimensions (feet)	Stack Gas Exit Velocity Range (feet per second)	Stack Gas Exit Temperature Range (°F)
EU1	25	1.5	25 - 60	70 - 200
EU2	30	1.3	30 - 50	70 - 200

Table 7 Key:

EU# = Emission Unit Number

°F = Degree Fahrenheit

5. GENERAL CONDITIONS

The Permittee is subject to, and shall comply with, the following general conditions:

- A. Pursuant to 310 CMR 7.01, 7.02, 7.09 and 7.10, should any nuisance condition(s), including but not limited to smoke, dust, odor or noise, occur as the result of the operation of the Facility, then the Permittee shall immediately take appropriate steps including shutdown, if necessary, to abate said nuisance condition(s).
- B. If asbestos remediation/removal will occur as a result of the approved construction, reconstruction, or alteration of this Facility, the Permittee shall ensure that all removal/remediation of asbestos shall be done in accordance with 310 CMR 7.15 in its entirety and 310 CMR 4.00.
- C. If construction or demolition of an industrial, commercial or institutional building will occur as a result of the approved construction, reconstruction, or alteration of this Facility, the Permittee shall ensure that said construction or demolition shall be done in accordance with 310 CMR 7.09(2) and 310 CMR 4.00.
- D. Pursuant to 310 CMR 7.01(2)(b) and 7.02(7)(b), the Permittee shall allow MassDEP and / or USEPA personnel access to the Facility, buildings, and all pertinent records for the purpose of making inspections and surveys, collecting samples, obtaining data, and reviewing records.
- E. This Plan Approval does not negate the responsibility of the Permittee to comply with any other applicable Federal, State, or local regulations now or in the future.
- F. Should there be any differences between the Application and this Plan Approval, the Plan Approval shall govern.
- G. Pursuant to 310 CMR 7.02(3)(k), MassDEP may revoke this Plan Approval if the construction work is not commenced within two years from the date of issuance of this Plan Approval, or if the construction work is suspended for one year or more.
- H. This Plan Approval may be suspended, modified, or revoked by MassDEP if MassDEP determines that any condition or part of this Plan Approval is being violated.
- I. This Plan Approval may be modified or amended when in the opinion of MassDEP such is necessary or appropriate to clarify the Plan Approval conditions or after consideration of a written request by the Permittee to amend the Plan Approval conditions.

- J. Pursuant to 310 CMR 7.01(3) and 7.02(3)(f), the Permittee shall comply with all conditions contained in this Plan Approval. Should there be any differences between provisions contained in the General Conditions and provisions contained elsewhere in the Plan Approval, the latter shall govern.

6. MASSACHUSETTS ENVIRONMENTAL POLICY ACT

MassDEP has determined that the filing of an Environmental Notification Form (ENF) with the Secretary of Energy & Environmental Affairs, for air quality control purposes, was not required prior to this action by MassDEP. Notwithstanding this determination, the Massachusetts Environmental Policy Act (MEPA) and 301 CMR 11.00, Section 11.04, provide certain “Fail-Safe Provisions,” which allow the Secretary to require the filing of an ENF and/or an Environmental Impact Report (EIR) at a later time.

7. APPEAL PROCESS

This Plan Approval is an action of MassDEP. If you are aggrieved by this action, you may request an adjudicatory hearing. A request for a hearing must be made in writing and postmarked within twenty-one (21) days of the date of issuance of this Plan Approval.

Under 310 CMR 1.01(6)(b), the request must state clearly and concisely the facts, which are the grounds for the request, and the relief sought. Additionally, the request must state why the Plan Approval is not consistent with applicable laws and regulations.

The hearing request along with a valid check payable to the Commonwealth of Massachusetts in the amount of one hundred dollars (\$100.00) must be mailed to:

Commonwealth of Massachusetts
Department of Environmental Protection
P.O. Box 4062
Boston, MA 02211

This request will be dismissed if the filing fee is not paid, unless the appellant is exempt or granted a waiver as described below. The filing fee is not required if the appellant is a city or town (or municipal agency), county, or district of the Commonwealth of Massachusetts, or a municipal housing authority.

MassDEP may waive the adjudicatory hearing-filing fee for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file, together with the hearing request as provided above, an affidavit setting forth the facts believed to support the claim of undue financial hardship.

Enclosed is a stamped approved copy of the application submittal.

Should you have any questions concerning this Plan Approval, please contact Mr. Mun Wong by telephone at 978-694-3286, or in writing at the letterhead address.

Sincerely,

This final document copy is being provided to you electronically by the
Department of Environmental Protection. A signed copy of this document
is on file at the DEP office listed on the letterhead.

Mun S. Wong
Environmental Engineer

This final document copy is being provided to you electronically by the
Department of Environmental Protection. A signed copy of this document
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Susan Ruch
Deputy Regional Director
and Acting Permit Chief
Bureau of Air and Waste

cc: Board of Health, 341 Pine Street, Lowell, MA 01851
Fire Headquarters, 99 Moody Street, Lowell, MA 01852
MassDEP/Boston - Yi Tian (e-copy)
MassDEP/NERO - Martha Bolis, Mary Persky, Ed Braczyk (e-copy)
CAAssociates, 16 Revolutionary Road, Acton, MA 01720 ATTN: Mr. Paul Murphy